

Meeting Minutes

Public Body Procurement Workgroup

Meeting # 3

Thursday, July 28, 2022, 9:30 a.m.
Conference Rooms C, D, and E
James Monroe Building
101 N 14th St, Richmond, Virginia 23219

<http://dgs.virginia.gov/dgs/directors-office/procurement-workgroup/>

The Public Body Procurement Workgroup (the Workgroup) met in-person in conference rooms C, D, and E in the James Monroe Building in Richmond, Virginia, with Sandra Gill, Deputy Director of the Department of General Services (DGS), presiding. The meeting began with remarks from Ms. Gill, followed by public comment. Materials presented at the meeting are available through the [Workgroup's website](#).

Workgroup members and representatives present at the meeting included Sandra Gill (Department of General Services), Matthew James (Department of Small Business and Supplier Diversity), Mary Lou Bulger (Virginia Information Technologies Agency), Robert Prezioso (Virginia Department of Transportation), Jason Saunders (Department of Planning and Budget), Patricia Innocenti (Virginia Association of Governmental Procurement), John McHugh (Virginia Association of State Colleges and University Purchasing Professionals), Andrea Peeks (House Appropriations Committee), Tyler Williams (Senate Finance and Appropriations Committee) and Amigo Wade (Division of Legislative Services). Leslie Haley, representing the Office of the Attorney General, was absent.

I. Call to Order; Remarks by Chair

Sandra Gill, Deputy Director
Department of General Services

Ms. Gill called the meeting to order and explained that the Workgroup will not be discussing SB 550 at this meeting, but during the public comment portion of the agenda stakeholders are welcome to make comments on either SB 550 or SB 575. She requested that stakeholders who have already provided public comment to the Workgroup at previous meetings limit their comments to any new information they wish to share with the Workgroup.

II. Approval of Meeting Minutes from the July 28, 2022 Workgroup Meeting

After the Workgroup heard and agreed to a request from Mr. Saunders to correct a typo on page 8, Mr. Prezioso made a motion to approve the meeting minutes from the July 28, 2022 meeting of the Workgroup. The motion was seconded by Mr. James and unanimously approved by the Workgroup.

III. Presentation on the Department of General Services' Responsibilities with Regards to Procurement of Medium-Duty and Heavy-Duty Vehicles

Next, Michael Bisogno, the Assistant Director of DGS, gave a presentation to the Workgroup about DGS and its Office of Fleet Management Services (OFMS), and their role in the purchase and use of Commonwealth-owned motor vehicles. He explained that OFMS is responsible for the centralized fleet of approximately 3,800 vehicles, which are spread out throughout the Commonwealth. He noted that the light-duty passenger-type vehicles are leased back to state agencies and institutions of higher education to assist them with their roles in carrying out the mission of the Commonwealth. In addition to operating the centralized fleet, he noted that OFMS is responsible for (i) developing guidance documents pertaining to the purchase, use, storage, maintenance, repair, and disposal of Commonwealth-owned light-duty passenger-type vehicles; (ii) assisting in the development of specifications for vehicles to be purchased on statewide contract through DGS's Division of Purchases and Supply (DPS); and (iii) approving the acquisition of all light-duty passenger-type vehicles for all state agencies.

Mr. Bisogno explained that due to the unique nature of medium-duty and heavy-duty vehicles, including their usage, specifications, and lifecycles, the development of vehicle specifications and purchasing responsibility for medium-duty and heavy-duty vehicles lies with the purchasing agency as opposed to OFMS. He emphasized that OFMS is mainly focused on light-duty passenger-type vehicles and their day-to-day mission.

IV. Presentation on the Virginia Department of Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles

The Workgroup then heard a presentation from Robert Prezioso, the State Maintenance Engineer with the Virginia Department of Transportation (VDOT), on VDOT's fleet of medium-duty and heavy-duty vehicles. He explained that VDOT has a vehicle fleet of approximately 8,000 pieces of equipment. Of that fleet nearly 2,600 pieces are medium-duty and heavy-duty vehicles (Class 4 through Class 8), and over half of those medium-duty and heavy-duty vehicles are in Class 8 (over 33,000 pounds).

Mr. Prezioso explained that in addition to VDOT's responsibilities to build, maintain and operate highways, VDOT fulfills a critical role of highway incident response. This includes responses to vehicle crashes, thunderstorms, tropical weather events, winter weather events, etc. He emphasized that these events can occur at any time of the day or night, and that some of these events require vehicles to be in use for 24 hours per day in

back-to-back 12-hour shifts. He noted that this need for readiness and long-term performance is not conducive to the recharging needs of an electric vehicle.

Mr. Prezioso shared that medium-duty and heavy-duty vehicles are the core items that are used to respond to these types of incidents. Of the nearly 2,600 medium-duty and heavy-duty pieces of equipment at VDOT, only about 150 are not part of the immediate incident response plans.

Mr. Prezioso explained that of the 150 medium-duty and heavy-duty vehicles that are not part of the immediate incident response plans, many have unique uses that require accessories that would make EV power inefficient. Examples he gave included line striping trucks, asphalt distributor tankers, drills, ditchers, and roadway sweepers.

After accounting for the unique vehicles described above, Mr. Prezioso shared that the remainder of the 150 non-incident response vehicles consist of about 20 Class 7 buses that VDOT uses to transport Department of Corrections (DOC) inmate road crews to and from work sites. He stressed that VDOT would need to consult with DOC to evaluate the risks associated with incorporating EV power into VDOT's Class 7 bus category.

Mr. Prezioso concluded his remarks by noting that overall, VDOT has a large fleet of medium-duty and heavy-duty equipment, but incident response demands and unique accessory needs eliminate all but a few of their vehicles from reasonable consideration for electrification. He emphasized that the provisions of SB 575 that require state agencies to use of a total cost of ownership (TCO) calculator for light-duty vehicles provide an exemption for vehicles used in incident response and other emergency response activities, and he expressed VDOT's desire that that same exemption be extended to any requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles.

V. Presentation on the Virginia Department of Rail and Public Transportation's Fleet of Medium-Duty and Heavy-Duty Vehicles and the Impact of Using a TCO Calculator During their Procurement

Next, the Workgroup heard a presentation from Grant Sparks, the Acting Chief of Public Transportation for the Virginia Department of Rail and Public Transportation (DRPT), on DRPT's mission and the impact that a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles would have on their operations. Mr. Sparks explained that DRPT's mission is to facilitate and improve the mobility of people in Virginia and to promote the efficient movement of goods and people in a safe, reliable, and cost-effective manner. He noted that DRPT works very closely with all public transportation providers and stakeholders in the Commonwealth to promote the benefits of using public transportation. He explained that DRPT is also a major funder of public transit investments in the Commonwealth for both operations, which includes transit agency salaries, wages, and maintenance, as well as capital projects, which includes bus replacements, infrastructure, and equipment.

Mr. Sparks then spoke to the Workgroup to share DRPT's comments on SB 575 as it relates to the procurement of public transportation vehicles and human service transportation vehicles. As background, he explained that today their transit agencies and human services transportation providers operate over 3,600 transit vehicles in the Commonwealth. About half of these vehicles are medium-duty and heavy-duty vehicles, which typically need to be replaced every 10 to 12 years. The other half of these vehicles are light-duty vehicles, which need to be replaced every four to five years. He shared that on average, DRPT provides funding for and helps support the purchase of over 300 transit vehicles per year. He stressed that as a state agency, DRPT does not operate transit services nor does it act as the title holder for transit vehicles in Virginia. It also does not make the decision as to which type of vehicle needs to be purchased for service. He explained that those are the responsibilities of the local transit agency.

Mr. Sparks shared that due to the volume of transit vehicles that are purchased in the Commonwealth annually, DRPT has historically worked with DGS to leverage economies of scale and develop a fully-procured and federally-compliant state transit vehicle contract. He explained that this contract may be used by any transit agency or human services transportation provider in the Commonwealth.

Mr. Sparks explained that when DRPT participates in the funding of a transit vehicle, the transit agency works directly with their preferred manufacturer on the state vehicle contract and specs out the vehicle, gets a final quote, and issues a purchase order directly through eVA. He noted that DRPT does not participate in the process of purchasing or leasing the vehicles. He explained that for human services transportation providers, which are much smaller agencies, the process is essentially the same – the agency works with their preferred vehicle manufacturer and gets a final quote for the vehicle, but DRPT issues the purchase order through eVA on behalf of the human services agency. He explained that this is something that they do as a courtesy for some of their very small agencies. He emphasized again, however, that the titles are held by the agencies, not DRPT.

Speaking specifically to SB 575, he stated that as the Workgroup considers implementing a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles, DRPT would support making a clear distinction that this requirement is only for state agencies that wish to purchase or lease vehicles, and not for local agencies that wish to purchase off of a state vehicle contract. He stated that if that is not feasible, DRPT would alternatively support establishing an exemption for transit vehicles, similar to the emergency vehicle exemption. He shared that these recommendations would also apply to any guidance documents that DGS develops for the TCO calculator for light-duty vehicles.

Mr. Sparks explained that while DRPT supports transit electrification efforts, it feels as though a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles, if implemented with the intent of including transit vehicles, would be duplicative of the work that DRPT is already doing and could be burdensome for its staff and transit agency staff. He stated that through the Infrastructure Investment and Jobs Act (IIJA), the

Federal Transit Administration (FTA) is providing over \$ 1.1 bill per year to transit agencies nationwide for the purchase of low or no emission transit vehicles. In order to apply for these funds, agencies must submit a “transition plan” to FTA, which is essentially a cost-benefit analysis and considers the capital and operating costs of the EVs (in coordination with utility providers), infrastructure capacity and installation, and a number of other criteria. He noted that DRPT staff are working very closely with their transit agencies to develop these transition plans, and thus DRPT believes that the use of a state-approved calculator tool is unnecessary and duplicative of the work that DRPT is currently doing with their agencies.

Mr. Saunders noted that oftentimes TCO calculators are focused primarily on the cost of procuring the vehicle. He inquired as to the current practice for procuring medium-duty and heavy-duty vehicles, and asked whether factors other than cost are taken into consideration.

Mr. Prezioso explained that the procurement process for medium-duty and heavy-duty vehicles is essentially a low-bid process. The vehicle is purchased from a low-bid contract that VDOT has negotiated itself or from a contract negotiated by someone they have partnered with, such as DGS. Mr. Sparks explained that for public transportation, the local transit agencies make the procurement decision. He noted that DRPT works with DGS on developing the state vehicle contract for transit vehicles, and that there are not that many transit vehicle manufacturers in the country that meet all of the federal requirements. He explained that all of the large manufacturing companies are on the state vehicle contract in Virginia, and when a local transit agency needs to replace a vehicle, it looks to the state vehicle contract and works with their preferred manufacturer. He noted that local transit agencies tend to select that same manufacturer each time because the agency already has all of the equipment and materials for that manufacturer within their maintenance departments. Mr. Sparks also noted that electric buses are already on the state vehicle contract, so nothing currently prohibits a local transit agency from purchasing an electric bus. Finally, Pete Stamps, Director of DPS, which facilitates the procuring and establishment of state contracts, commented that the specifications and need are determined by DRPT or OFMS, and DPS facilitates the contract. He noted that the contract is awarded to the lowest responsive and responsible bidder.

VI. Consideration and Discussion of Public Comment, Written Comments, and Other Information Received by the Workgroup on SB 575

The Workgroup then moved into consideration and discussion of the public comment, written comments, and other information received by the Workgroup on SB 575. Ms. Gill began the discussion by reminding the Workgroup of the tasks that it was assigned to complete by the third enactment clause of SB 575 – (i) consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments and (ii) consider (a) the current commercial market for medium-duty and heavy-duty electric vehicles, (b) the unique characteristics of medium-duty and heavy-duty vehicles, including charging infrastructure and operational duty cycles, (c) the potential volume of medium-duty and

heavy-duty vehicles purchased by DGS and other state agencies, (d) the availability of public total cost of ownership (TCO) calculators for medium-duty and heavy-duty vehicles and their suitability for use by DGS and other state agencies, and (e) the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle. Ms. Gill then walked the Workgroup through discussion on each of those tasks.

Ms. Gill noted that regarding the first task (“consult with relevant stakeholders, including at least one medium-duty or heavy-duty vehicle technology provider with experience in real-world deployments”), Chris Nolan with McGuire Woods Consulting spoke to the Workgroup at its previous meeting on behalf of Volvo Trucks of North America. He shared that Volvo produces both medium-duty and heavy-duty trucks, and began producing a heavy-duty EV product in 2021. As such, Ms. Gill noted that the Workgroup has completed its first task.

Regarding the second task (“consider the current commercial market for medium-duty and heavy-duty electric vehicles”), Ms. Gill reminded the Workgroup that at its previous meeting Mr. Nolan shared some information about the current commercial market for medium-duty and heavy-duty vehicles and highlighted that Volvo believes that EVs are going to make up more of the medium-duty and heavy-duty market as time goes on. He shared that as a company their goal is for 35 percent of their sales to be EVs by 2030. She then opened up the floor for discussion on this task.

Mr. Prezioso shared that at this point in time manufacturers are struggling to even deliver standard light-duty internal combustion engine vehicles (ICEVs). He stated that anything they order in that category today is going to be 12, 14, or 15 months out for delivery, and there are only a limited number of them that they can get. He stated that the availability of medium-duty and heavy-duty vehicles is just as, or even more, challenging. As far as EVs, and medium-duty and heavy-duty EVs in particular, he noted that there does not really seem to be any available on the market, especially on a large scale. He shared that he knows manufacturers are making some change over to produce EVs, but they seem to be heavily focused on meeting current demand before they start making EVs.

Ms. Gill then asked Ms. Innocenti about what she is hearing from the local government community concerning their transition to EVs and any challenges they are seeing. Ms. Innocenti responded that their experience is much as Mr. Prezioso reported. She noted that for a regular fleet there are significant delivery delays. She shared that it was reported to her that for Ford Super Duty trucks, there is only a one-day opening in the window bank this fall for fleet purchasers, and she noted that that speaks to the overall challenges in fleet replenishment. Ms. Innocenti also explained that localities use the statewide vehicle contract to purchase school buses and vehicles for their transit fleet, and while the availability of EVs on the state vehicle contract is a valuable tool in trying to transition their fleet, localities face concerns about EV infrastructure, the ability of their existing maintenance facilities to be able to support EVs, and charging infrastructure. She

stressed that the decision to transition to EVs is a complex decision, and it is not strictly limited to what is available on the market. She explained that localities must take into consideration all of the factors that go into the purchase and support of EVs over their lifetime.

Mr. Wade expressed concern about having a strict mandate to state agencies to purchase an EV if they are the more cost-efficient option regardless of whether EVs are, in fact, available. He suggested establishing an exemption from the mandate for situations in which EVs are not available for purchase and delivery within a reasonable timeframe.

Ms. Gill asked Mr. McHugh about what institutions of higher education are doing regarding transit at their schools. He responded that most institutions partner with their local transit authority (for example, VCU has a partnership with GRTC), and, as Mr. Sparks mentioned, those transit authorities have a transition plan, which is an expectation of any authority to determine whether EVs are appropriate.

Ms. Gill then directed the Workgroup's attention to a spreadsheet that was included in the meeting materials showing the results of an email survey conducted by the Workgroup's staff of agencies' current inventory of medium-duty and heavy-duty vehicles. She noted that the results show that the Commonwealth currently has a total of just over 3,000 medium-duty and heavy-duty vehicles. She demonstrated that once VDOT's incident and emergency response vehicles (which VDOT intends to have exempted from any requirement to use a TCO calculator of medium-duty and heavy-duty vehicles, similar to their current exemption from the requirement to use a TCO calculator for light-duty vehicles) are subtracted from the total, only 730 medium-duty and heavy-duty vehicles remain.

Ms. Gill then asked the Workgroup to consider its fifth task ("the availability of public TCO calculators for medium-duty and heavy-duty vehicles and their suitability for use DGS and other state agencies"). She noted that at its previous meeting the Workgroup heard from the Electrification Coalition and that they provided the Workgroup with a significant amount of information on their TCO calculator, called the DRVE Tool. Ms. Gill asked if any of the Workgroup members had any comments on the factors that the Workgroup should consider in deciding whether state agencies should be required to use a TCO calculator for medium-duty and heavy-duty vehicles.

Ms. Gill asked Mr. Sparks what the timeline is for applying for IIJA funds. Mr. Sparks responded that the low and no emission program through FTA, which received a substantial increase in funding through IIJA, is an annual program. He noted that DRPT just went through a round of grant applications a couple of months ago, so they will apply again next year. When asked specifically if there is a set expiration for the IIJA funds, Mr. Sparks responded that funding is available through the next four or five years, but beyond that it is unclear.

Mr. Prezioso then shared that the TCO calculators that he is aware of that are publicly available tend to focus mainly on light-duty passenger-type vehicles. He asked whether

any of the Workgroup members have found any other publicly available TCO calculators that are better focused on heavy-duty equipment. Ms. Gill responded that she recalls that the Electrification Coalition testified at the Workgroup's previous meeting that their TCO calculator, the DRVE Tool, does have that capability.

Ms. Gill then asked the Workgroup members to share their thoughts on the Workgroup's sixth and final task ("consider the appropriateness of requiring DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle").

Mr. McHugh expressed concerns about the practicality of requiring state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles at this point in time. He stressed that TCO calculators do not take into consideration availability, and he referred to previous testimony from Mr. Nolan that Volvo will not be producing a significant number of medium-duty and heavy-duty EVs until 2030. He also highlighted the importance of making sure that the cost of infrastructure is accurately included in the TCO calculator, particularly for medium-duty and heavy-duty vehicles because they are so specialized. He noted that the cost of building out infrastructure falls on the procuring agency, and it is a significant cost. He also encouraged the Workgroup to consider any differences there may be in building out the grid and procuring infrastructure in urban areas, such as the City of Richmond, versus more rural areas.

Regarding infrastructure, Ms. Innocenti noted that the capacity of the fleet management organization to support the infrastructure should be taken into consideration. She emphasized that infrastructure is more than just charging stations – it includes the need to train technicians, the availability of repair parts and other elements that are involved in fleet maintenance, and so on. Additionally, she asked the Workgroup to consider what the market is for the batteries and other elements that are needed to maintain the fleet.

VII. Findings and Recommendations on SB 575

The Workgroup then proceed to discuss and formalize its findings and recommendations. Regarding SB 575's ultimate task to the Workgroup to decide whether it is appropriate to require DGS and all state agencies to use a TCO calculator to assess and compare the total cost to purchase, own, lease, and operate medium-duty and heavy-duty internal combustion-engine vehicles versus comparable electric vehicles prior to purchasing or leasing any medium-duty or heavy-duty vehicle, Ms. Gill stated that at this point in time she does not believe that it is appropriate to require state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but she thinks that it is potentially the right time for agencies to begin researching and investigating their long-term use. Mr. McHugh and Ms. Innocenti indicated that they agree with Ms. Gill's statement.

Mr. Wade also indicated his agreement, noting again his concerns with having a mandate without taking into consideration practical considerations. Mr. Saunders stated his

agreement, as well. He pointed to the spreadsheet demonstrating the potential number of vehicles that would be impacted by a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles and noted that the number of such vehicles is relatively small compared to the number of vehicles that will be impacted by the recent requirement to use a TCO calculator for light-duty vehicles. He emphasized that if the requirement to use a TCO calculator for light-duty vehicles turns out to be beneficial, and the market for medium-duty and heavy-duty EVs grows over time, then perhaps the next step will be to implement a requirement to use a TCO calculator for medium-duty and heavy-duty vehicles. He stated that while now may not be the right time to implement the TCO requirement for medium-duty and heavy-duty, there may be a time in the future when it will be appropriate.

Mr. Prezioso stated that he agrees. He drew the Workgroup's attention to the fact that diesel-powered equipment has seen many improvements over the last five to ten years in efficiency and its carbon footprint, and he noted that even if the Workgroup does not move forward with endorsing a requirement to use a TCO calculator for medium-duty and heavy-duty equipment, those gains will still exist. He suggested that in lieu of recommending that state agencies be required to use a TCO calculator for medium-duty and heavy-duty vehicles at this time, the Workgroup could recommend that state agencies be directed to establish a TCO calculator for medium-duty and heavy-duty vehicles or investigate what factors they believe need to be included in a TCO calculator for medium-duty and heavy-duty vehicles.

Mr. Williams and Ms. Peeks abstained from the recommendation. Ms. Bulger and Mr. James stated that they agree with the recommendation.

Regarding Mr. Prezioso's suggestion, Ms. Gill asked the Workgroup members for their thoughts on including in their recommendations a recommendation that the state agencies that procure the largest number of medium-duty and heavy-duty vehicles, including VDOT and DRPT, consider what factors should be included in a TCO calculator for medium-duty and heavy-duty vehicles. She asked Mr. Prezioso whether VDOT would be open to that as part of the recommendation, and he indicated that they would because they are likely going to do some of that on their own anyways. Mr. McHugh and Mr. Sparks indicated that they are okay with the recommendation, as well.

Ms. Gill then summarized the group's recommendation as follows: The Workgroup finds that it is not appropriate at this time to require DGS and all other state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, but the Workgroup recommends that the General Assembly consider directing VDOT, DRPT, and other state agencies to (i) investigate and determine the appropriate factors that need to be included in a TCO calculator for medium-duty and heavy-duty vehicles and (ii) determine when it may be appropriate to implement a requirement that state agencies use a TCO calculator for medium-duty and heavy-duty vehicles. Ms. Gill asked for feedback on the recommendation, and the Workgroup members indicated their agreement.

VIII. Public Comment

The Workgroup then heard public comment from stakeholders.

Chris Bast, Director of EV Infrastructure and Investments for the Electrification Coalition (EC), provided additional comment to the Workgroup about the EC's TCO calculator, the DRVE Tool. He stressed that the DRVE Tool does include infrastructure and maintenance, and that users are essentially able to input anything they want into the calculator to ensure that they are getting an appropriate calculation. He stressed that many heavy-duty vehicle manufacturers include training and maintenance in their contracts. He said that right now, the only limitation with the DRVE Tool in the context of medium-duty and heavy-duty vehicles is that there are simply not enough models of medium-duty and heavy-duty EVs available. He stated that every day they are getting more information about new models that have become available and will become available in the future, and they are continuously updating the calculator to reflect that information. He emphasized that as more governments and businesses use the tool, the EC will get better information and be able to continuously improve it. He stressed that the EC is happy to continue conversations with state agencies to figure out how to make sure the DRVE Tool has the functionality they need.

Referring to previous testimony about the unique nature of medium-duty and heavy-duty vehicles and how their uses would require them to have rapid chargers in order for them to get the most use during a work day, as well as how the cost of charging is dependent upon the utility rate at the time of day that the EV is charged, Ms. Gill asked Mr. Bast about the ability of the DRVE Tool to take factors such as those into consideration. She asked him to elaborate further about how the DRVE Tool is ready at this point to make accurate comparisons between ICEVs and EVs, particularly when comparing the use of ICEVs to EVs in places like Southwest Virginia as opposed to the City of Richmond. Mr. Bast responded that a lot of that is user-inputted. He explained that the DRVE Tool has the formulas and algorithms that will do the calculations for you, but the user defines the variables.

The Workgroup then heard from Mr. Nolan, who spoke again on behalf of Volvo Trucks. He reiterated that Volvo does support the use of TCO calculators when comparing ICEVs and EVs, but he mentioned that Volvo is not endorsing a specific tool. He emphasized that the fact that a TCO calculator *can* include certain variables does not solve the issue of *which* variables *should* be included in order for a user to obtain an accurate total cost of ownership comparison between a medium-duty or heavy-duty ICEV versus medium-duty or heavy-duty EV. Expressing concern that the variables are user-defined, he questioned what the guidelines for using the tool would be for users. Referring again to the unique nature of medium-duty and heavy-duty vehicles, as opposed to light-duty vehicles, he emphasized the complex and situation-specific factors that are at play when determining the cost of purchasing and operating a medium-duty or heavy-duty EV – e.g. existing infrastructure, location (urban versus rural), when the existing power line coming into the facility is sufficient to support the type of rapid charging needed for medium-duty and heavy-duty EVs, etc. He stressed the importance of ensuring that such factors

are accounted for in a TCO calculator for medium-duty and heavy-duty vehicles in order for users to obtain an accurate comparison.

Referring again to his concern about the TCO calculators' user-defined fields, Mr. Nolan shared that when SB 575 was introduced during the 2022 Session of the General Assembly, Volvo looked at the EC's DRVE Tool and noticed that the DRVE Tool's drop-down box for selecting a medium-duty or heavy-duty EV did not include a Volvo product even though a Volvo product was for available for sale at the time. He concluded his remarks by stating that if there is going to be a requirement for state agencies to use a TCO calculator for medium-duty and heavy-duty vehicles, state employees will need a significant amount of guidance as to what to what they need to input into the user-defined fields of the TCO calculator in order for them to obtain a truly accurate comparison of the total cost of ownership between the ICEV and the EV.

IX. Discussion

Ms. Gill then asked the Workgroup if anyone desired to make any changes to what the Workgroup previously discussed based on the additional public comment they received. No member of the Workgroup responded in the affirmative.

X. Adjournment

Ms. Gill adjourned the meeting at 10:44 a.m. and noted that the next Workgroup meeting has been rescheduled for Wednesday, August 31, 2022 at 9:30 a.m. in East Reading Room in the Patrick Henry Building in Richmond, Virginia. She also noted that the because the Workgroup only focused on SB 575 today, it will focus on SB 550 at its next meeting and will be adding a fifth meeting to its work plan.

For more information, see the [Workgroup's website](#) or contact that Workgroup's staff at pwg@dgs.virginia.gov.
